

Is it Star Trek yet?

John From - Professional Career

- Chalk and Wire Learning Assessment Inc. (current)
 - Chief Technical Officer
 - Chalk and Wire was a client of Magma and I took over the management, planning and deployment.
- Magma Communications
 - Corporate Technical Support
 - Managed Systems Administration
 - Fun Fact: During the NA blackout Magma's data center was one of the few that stayed online. Disaster Recovery FTW!
 - Bought by Primus Canada and is now owned by Rogers Data Centers
- Fedacom Computers
 - System Builder and technical support
- Compaq Consumer Support
 - Consumer desktop support
- Bell Sympatico - 1Mb DSL Residential High Speed Support
 - Fun Fact: this is where I first discovered userfriendly.org and google.com

Chalk and Wire

- <http://chalkandwire.com/>
- Chalk and Wire provides an ePortfolio platform as the method of collecting work samples for assessment.
- Assessment instruments (rubrics) are used to evaluate the work based on a set of criteria with multiple performance levels.
- Dealing mostly with educational institutions we had the challenge of integrating with different LMS and SIS systems.
- <http://www.imslobal.org/toolsinteroperability2.cfm>
- <http://chalkandwire.com/index.php/solutions/integration>
- IMS Global developed the Learning Tools Interoperability standard (LTI) which we adopted early on and allows us to attached directly to an LMS (SSO and Gradebook integration).

Blockchain

- Bitcoin Whitepaper by Satoshi Nakamoto
 - <https://bitcoin.org/bitcoin.pdf>
- Basic overview of bitcoin
 - <https://bitcoin.org/en/how-it-works>
- Detailed video presentation on how bitcoin works
 - <https://www.youtube.com/watch?v=Lx9zgZCMqXE>
- Wired presentation on the underlying blockchain technology
 - <https://www.youtube.com/watch?v=jbu6l-8mNUo>
- Legal perspective on the future of decentralized blockchain based technologies and services
 - [Decentralized Blockchain Technology and the Rise of Lex Cryptographia](#)
- New technologies based on the blockchain
 - https://bitmessage.org/wiki/Main_Page - P2P encrypted mail system
 - <https://openbazaar.org/> - open source market for goods and services using bitcoin
- Diffie-Hellman Key Exchange - Public Key Infrastructure
 - https://www.youtube.com/watch?v=YEBfamv-_do - public/private key exchange explained. excellent video for an intro in how PKI works.

Blockchain technology is similar to the early internet with the opportunity to build new services on a decentralized open source platform, moving away from centralized services.

Open Source Ecology

- Global open sourced project to develop the global village construction set.
 - <http://opensourceecology.org/gvcs/>
 - <http://opensourceecology.org/about-videos-3/>
- The project is bringing the idea of an open source based economy through applying IT design methodologies to industrial hardware. Agile development using design sprints rapidly produce functional designs with each iteration.
 - <http://opensourceecology.dozuki.com/> - current technical documentation
- The microhouse project is an example of how the process of parallel assembly and swarm constructions techniques work. The design is on it's 4th iteration using their CEB layer and is an 800 sq ft microhouse that can be built and assembled within a week.
 - <http://opensourceecology.org/microhouse-workshop-4/>
- Distributed manufacturing (many to one) can produce goods faster than the traditional model (one to many). The micro house, using multiple teams, can each be built in 7 days using unskilled labour for the majority of the work.

Star Trek?

- IBM Watson - cognitive computer system
 - http://en.wikipedia.org/wiki/Watson_%28computer%29
 - <http://www.ibm.com/analytics/watson-analytics/>
- Quantum computing
 - <http://www.sciencemag.org/content/342/6160/830>
- Warp Drive
 - <http://nextbigfuture.com/2014/08/paper-suggests-nasa-warping-space-time.html>
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